

ABSTRACT

A fuel injector for an internal combustion engine is provided. The fuel injector has a simple structure that is easy to install and

5 remove a piezoelectric valve actuator in and from the fuel injector and to adjust fuel injection characteristics finely and that allows an overall size of the fuel injector to be decreased. The fuel injector includes a housing to be installed in the engine and a structural element serving to install the piezoelectric valve actuator in the

10 housing to be detachable easily. The piezoelectric valve actuator is retained in an actuator casing fitted in the housing so that it can expand or contract to move a needle valve. The actuator casing has an extensible portion in itself or is coupled to a bellows in alignment for enabling the piezoelectric valve actuator to expand, thereby

15 allowing the size of the actuator casing to be minimized.